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***Definition and analysis of subjective
indicators of urban quality-of-life in an
“atypical” city***

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In 2003

The City of Florence (Italy) and the the University of Florence promoted a study on the citizens' perception and evaluation of the quality of life in their city.



Main aim



re-qualifying the city life through fair policies
answering to residents' needs.

In this perspective

the study attempted also to

develop some particular indicators of quality of life

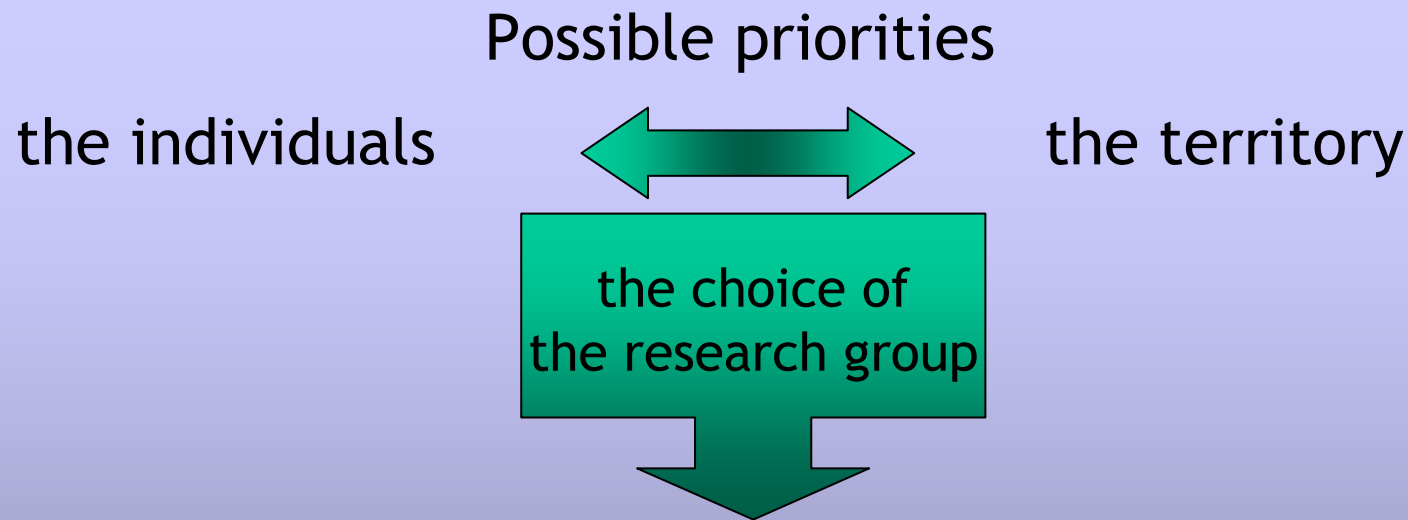
in order to

measure and interpret the levels of suitability of the

living conditions that the city of Florence offers to

its inhabitants

The conceptual model



studying the *interaction* between

each individual and the urban environment

defined in terms of three different levels

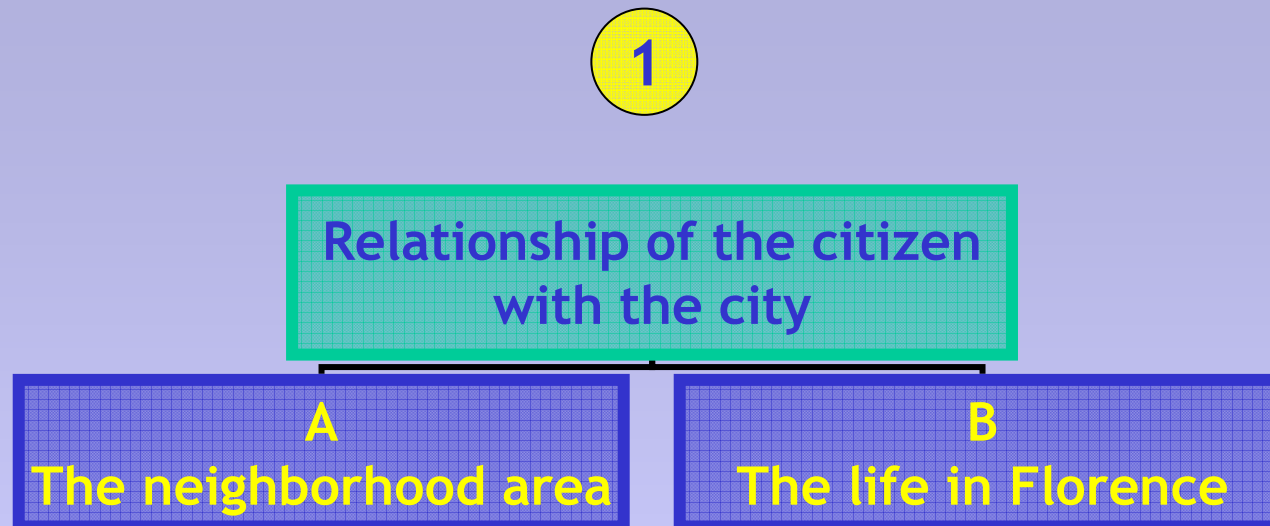
housing-space

neighborhood space

whole city

The questionnaire structure

Two ambits



The questionnaire structure

Two ambits

2

Aspects of the individual life

A
Individual living
condition

B
Values

C
Subjective
perceptions

D
Finantial
situation

Sampling design

Probabilistic stratified design

variables for stratification:

- Area of residence (20 areas)
- Age (7 groups)
- Sex

1200 units

(280 strata)

Data collection

Two planned surveys

1

When



October-November 2003

Who



1185 individuals

By



Paper-questionnaire

Data collection

Two planned surveys

2

Aims:

- to update some individual information
- to measure possible change in some subjective dimensions concerning city life

Data collection

Two planned surveys

2

When



October 2004

Who



The individuals that at the first interview
accepted to be re-interviewed (694)

By



Telephonic-questionnaire

Developing and using subjective indicators of qol in Florence

Some complex variables of the questionnaire structure required the definition of
a composite model
and
the collection of several items

Developing and using subjective indicators of qol in Florence

- *The subjective image of the city*
- *The perception of the tourist dimension of the city*
- *The perception of the cultural dimension of the city*
- *The personal safety perception*
- *The evaluation of the district*
- *The territorial distribution of the public services*
- *The irregularity of the time required to cover the daily-route distances*

Procedure for
***Developing and using subjective
indicators of qol in Florence***

1

***Definition and analysis of each composite
indicator***

dimensional analysis

to verify the dimensionality of the single indicators

Procedure for
***Developing and using subjective
indicators of qol in Florence***

1

***Definition and analysis of each composite
indicator***

synthesis analysis

to synthesize the single indicators

Procedure for
***Developing and using subjective
indicators of qol in Florence***

1

***Definition and analysis of each composite
indicator***

descriptive analysis

to describe the distribution of the composite indicator

Procedure for
***Developing and using subjective
indicators of qol in Florence***

1

***Definition and analysis of each composite
indicator***

comparative analysis

to verify the discriminant capacity of the composite indicator

Procedure for
***Developing and using subjective
indicators of qol in Florence***

1

***Definition and analysis of each composite
indicator***

validity analysis

to verify the validity of the composite indicator in terms of
quality of life measures

Procedure for
***Developing and using subjective
indicators of qol in Florence***

2

Aggregation of the composite indicators

in order to obtain

few interpretable, functional and manageable indicators

Procedure for
***Developing and using subjective
indicators of qol in Florence***

3

Identification of typical profiles of citizens

grouping analysis

by combining the composite and simple indicators

1

Definition and analysis of the subjective indicators of qol in Florence

*Definition and analysis of the subjective indicators
of qol in Florence*

The subjective image of the city

The analysis of the group of differential semantic scales (q. 25) confirmed the presence of 5 dimensions.

Five different indicators were defined

Definition and analysis of the subjective indicators of qol in Florence

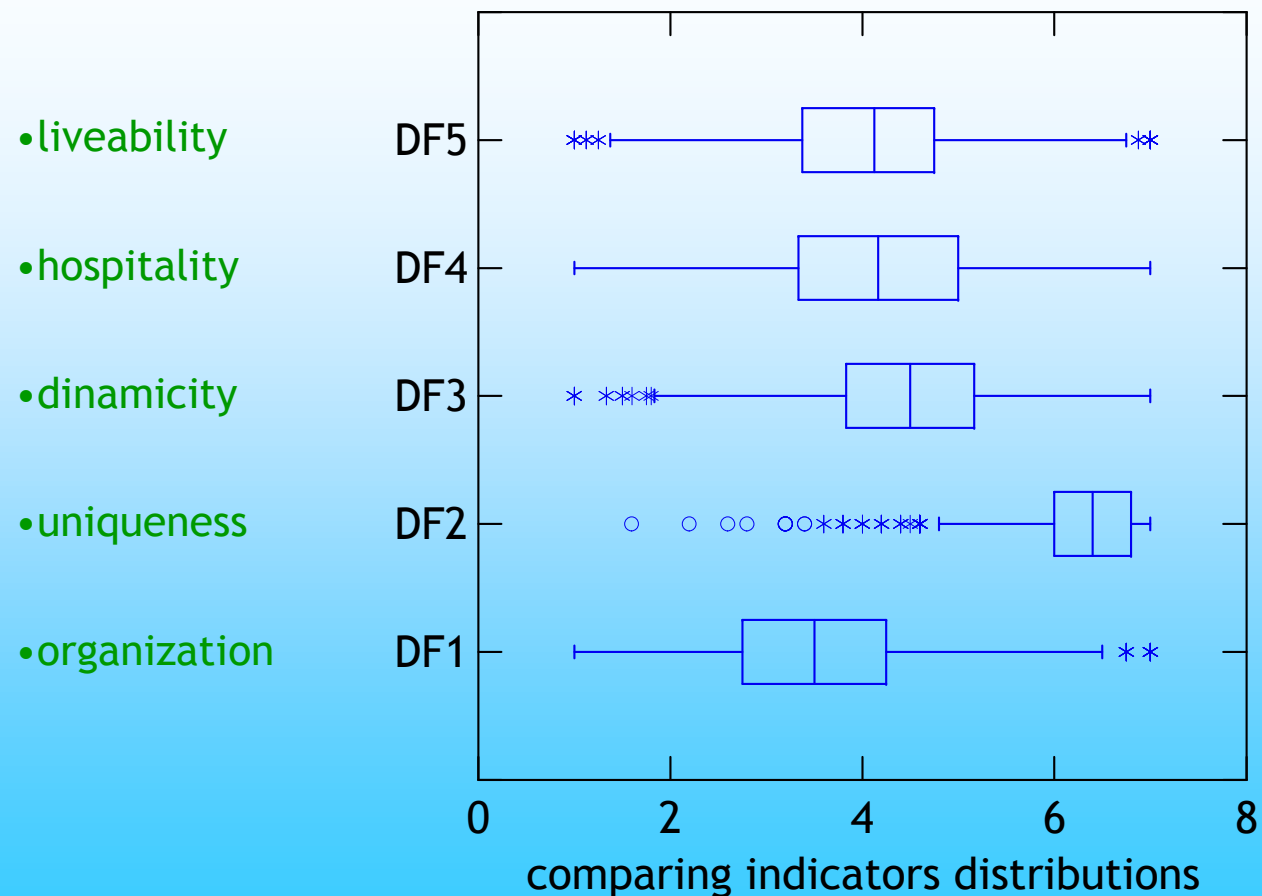
The subjective image of the city

- organization
 - uniqueness
 - dinamicity
 - hospitality
 - liveability

scores ranging
from 0
(extremely negative image)
to 7
(extremely positive image)

Definition and analysis of the subjective indicators of qol in Florence

The subjective image of the city



*Definition and analysis of the subjective indicators
of qol in Florence*

The subjective image of the city

observation

High level of criticism towards the city with regard to
organization, dinamicity, hospitality, liveability
is observed among

citizens that

- live in the center of the city
- carry on autonomous and commercial activities
- live alone
- have high standards of education

Definition and analysis of the subjective indicators of qol in Florence

The perception of the tourist dimension

The analysis of the agreements to a group of 10 assertions (q. 20) allowed to define a perception score ranging

from 0

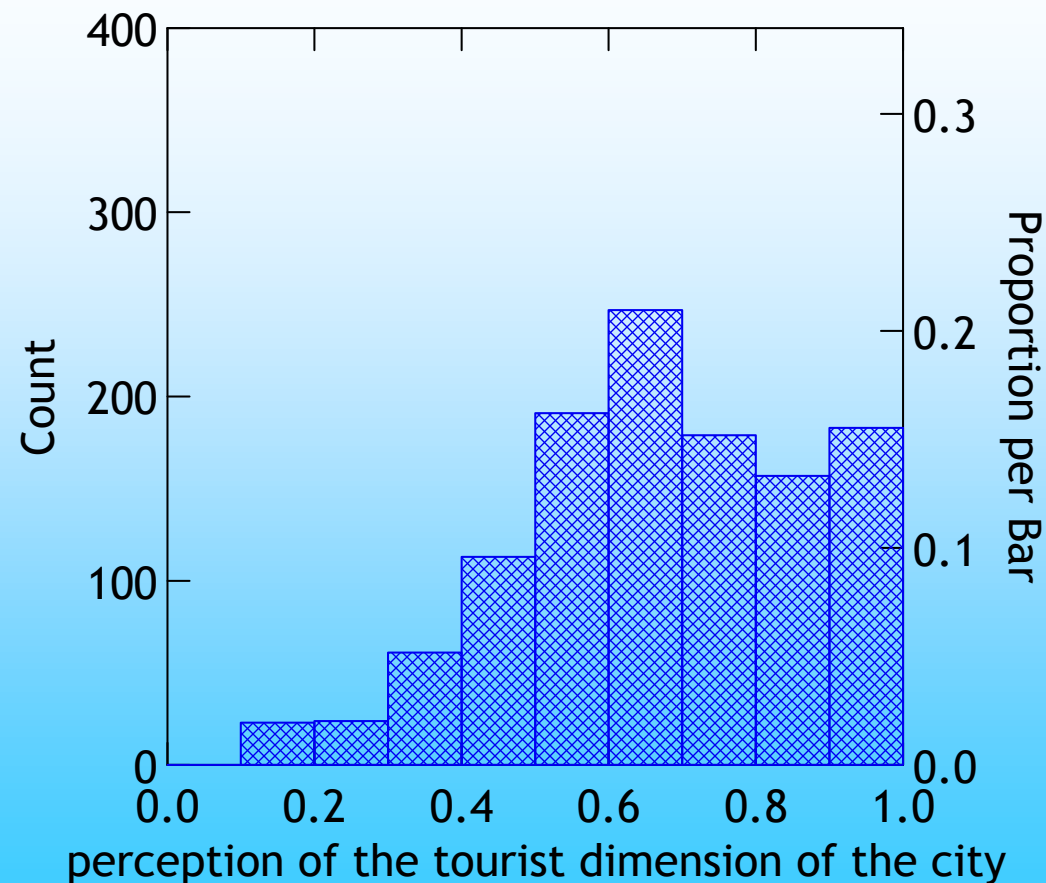
(maximum negative perception)

to 1

(maximum positive perception).

Definition and analysis of the subjective indicators of qol in Florence

The perception of the tourist dimension



*Definition and analysis of the subjective indicators
of qol in Florence*

The perception of the tourist dimension

observation

The more critical attitudes are related to:

- high standards of education
- autonomous and commercial work
- living in the center area

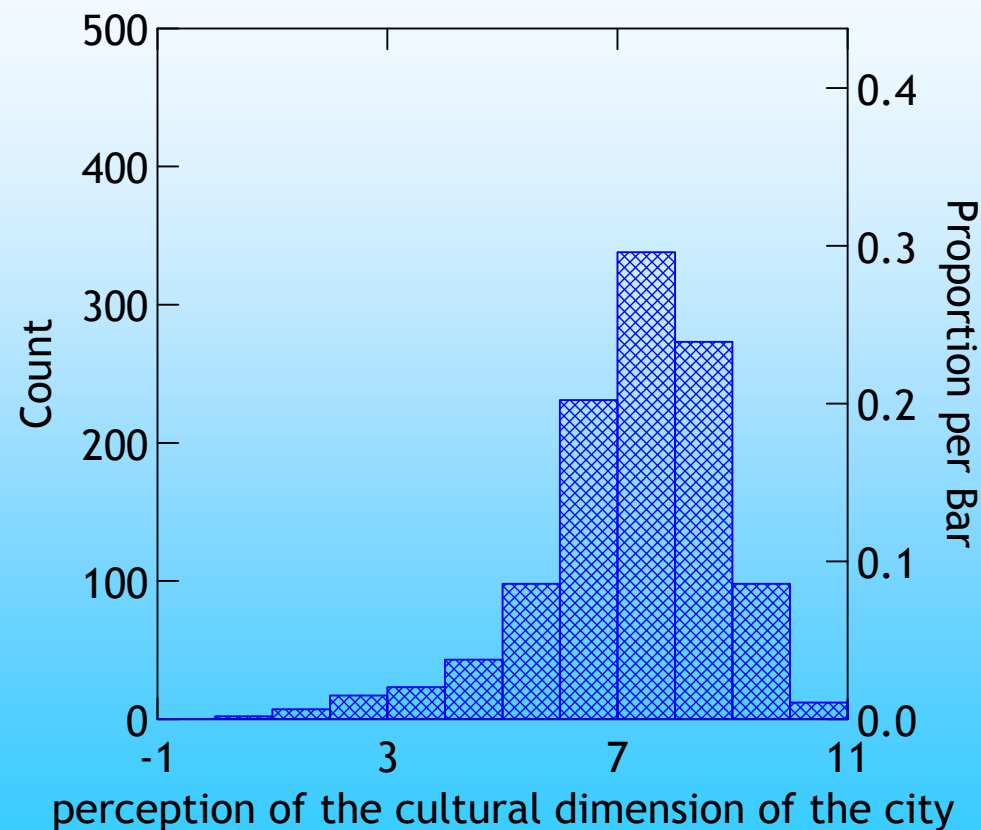
Definition and analysis of the subjective indicators of qol in Florence

The perception of the cultural dimension

The average of the levels of agreements
expressed with regard to a group of assertions (q. 22) concerning
the offers presented by the city
was calculated, ranging
from 0
(maximum negative perception)
to 10
(maximum positive perception).

Definition and analysis of the subjective indicators of qol in Florence

The perception of the cultural dimension



*Definition and analysis of the subjective indicators
of qol in Florence*

The perception of the cultural dimension

observation

The level of perception is

- related to a stereotyped and fixed affective dimension
- related to the level of satisfaction for one's life in Florence ($r=0.4$)

*Definition and analysis of the subjective indicators
of qol in Florence*

The perception of the personal safety

The cluster analysis on perception (q. 18) with regard to

3 different urban contexts

2 different moments of the day

revealed that

the subjective perception of the safety changes is
a function of the moment of the day and not of the urban
context.

*Definition and analysis of the subjective indicators
of qol in Florence*

The perception of the personal safety

Two indicators:

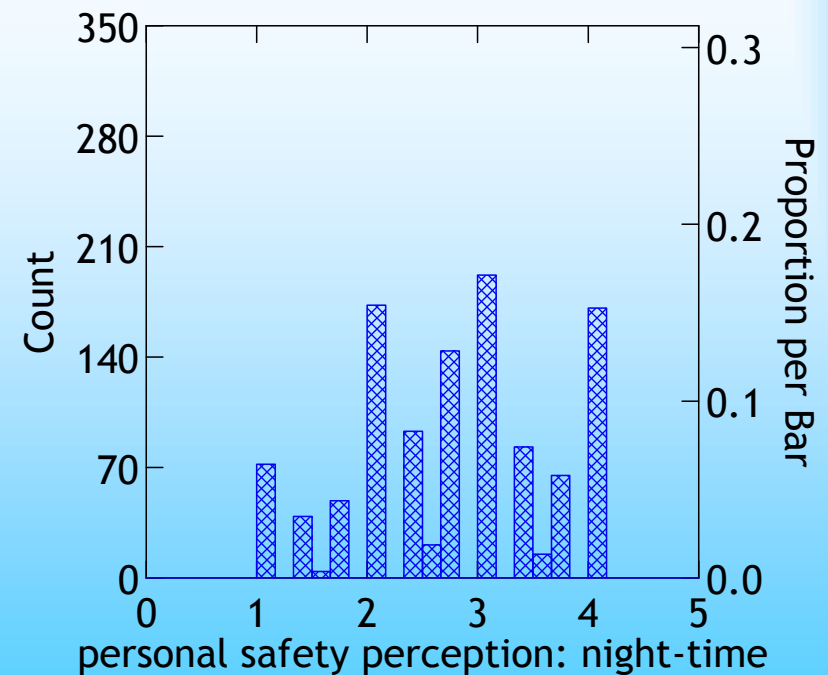
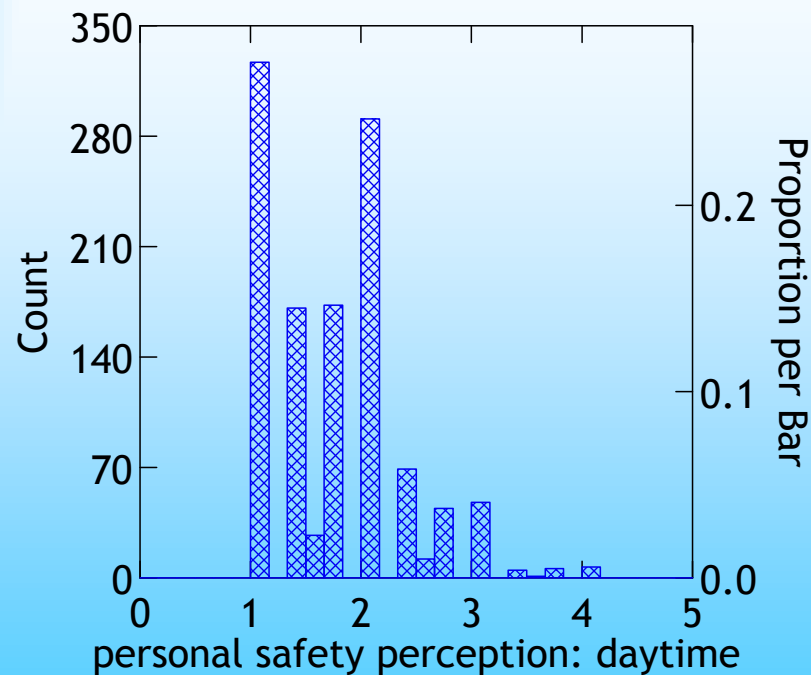
Daytime safety perception

Night-time safety perception

scores ranging
from 1
(high security perception)
to 4
(high insecurity perception)

Definition and analysis of the subjective indicators of qol in Florence

The perception of the personal safety



*Definition and analysis of the subjective indicators
of qol in Florence*

The perception of the personal safety

observation

The level of perception is

- related to age
- not related to the satisfaction for one's life in Florence

*Definition and analysis of the subjective indicators
of qol in Florence*

The evaluation of the district

The dimensional analysis of the group of 20 single-items concerning differential aspects of the district life (q. 6) confirmed the presence of 5 dimensions.

Five different indicators were defined

Definition and analysis of the subjective indicators of qol in Florence

The evaluation of the district

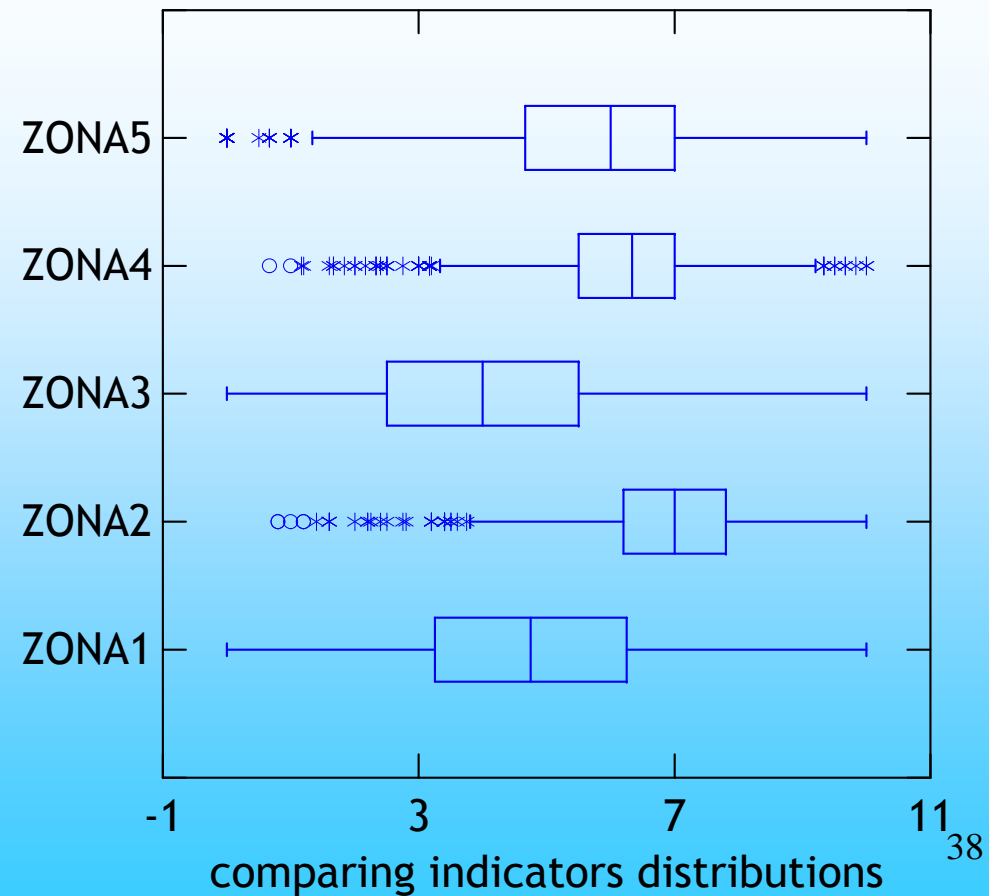
- traffic conditions
 - presence of services
 - road network condition
 - urban environment
 - urban green

scores ranging
from 0
(extremely negative evaluation)
to 10
(extremely positive evaluation)

Definition and analysis of the subjective indicators of qol in Florence

The evaluation of the district

- urban green
- urban environment
- road network condition
- presence of services
- traffic conditions



Definition and analysis of the subjective indicators of qol in Florence

The evaluation of the district

observation

- Positive evaluation reported by young citizens
- Critical level of evaluation expressed by
 - ✓ citizens with high standard of education
 - ✓ single citizens

*Definition and analysis of the subjective indicators
of qol in Florence*

*The territorial distribution of the public
services*

The interviewees reported how long
they take to walk to some sites
considered important in every-day-life
(q. 8).

*Definition and analysis of the subjective indicators
of qol in Florence*

The territorial distribution of the public services

objective

To construct a perceptual map of the sites

The dimensional analysis allowed to define three
levels of territorial distribution of the identified
services.

Three different individual scores were defined: 41

*Definition and analysis of the subjective indicators
of qol in Florence*

*The territorial distribution of the public
services*

- extensive distribution

(chemist's post-office, school, bus stop)

- zonal distribution

(district center, local and supermarket, Police Station)

- variable distribution

(family doctor, bank)

Mean of the
reported minutes

*Definition and analysis of the subjective indicators
of qol in Florence*

*The territorial distribution of the public
services*

observation

The perceived times are related to

- age
- residence area
- individual faith (the 3rd indicator)

*Definition and analysis of the subjective indicators
of qol in Florence*

*The irregularity of time required to cover the
daily-route distances*

One of the components of the individual
quality of life in an urban context is the
use of the time.

The irregularity (maybe more than the length) of the mileage
times can represent a disturbing element in every-day-life.

*Definition and analysis of the subjective indicators
of qol in Florence*

*The irregularity of time required to cover the
daily-route distances*

The irregularity is frequent in a city where short and little spaces contrast with the high density of population composed also by commuters and tourists.

*Definition and analysis of the subjective indicators
of qol in Florence*

*The irregularity of time required to cover the
daily-route distances*

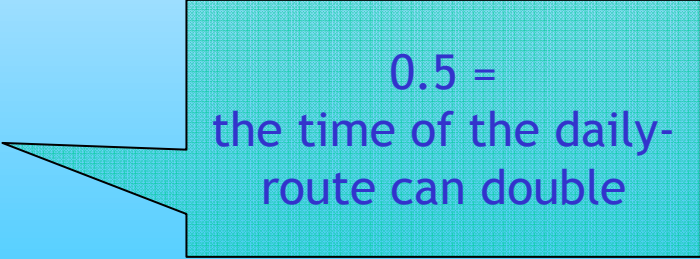
Each respondent reported the
minimum and maximum amount of minutes
with regard to the daily route to go to work or to school (q.10).

*Definition and analysis of the subjective indicators
of qol in Florence*

*The irregularity of time required to cover the
daily-route distances*

$$\text{irregularity} \cdot \text{index} = \frac{\max(\text{time}) - \min(\text{time})}{\max(\text{time})}$$

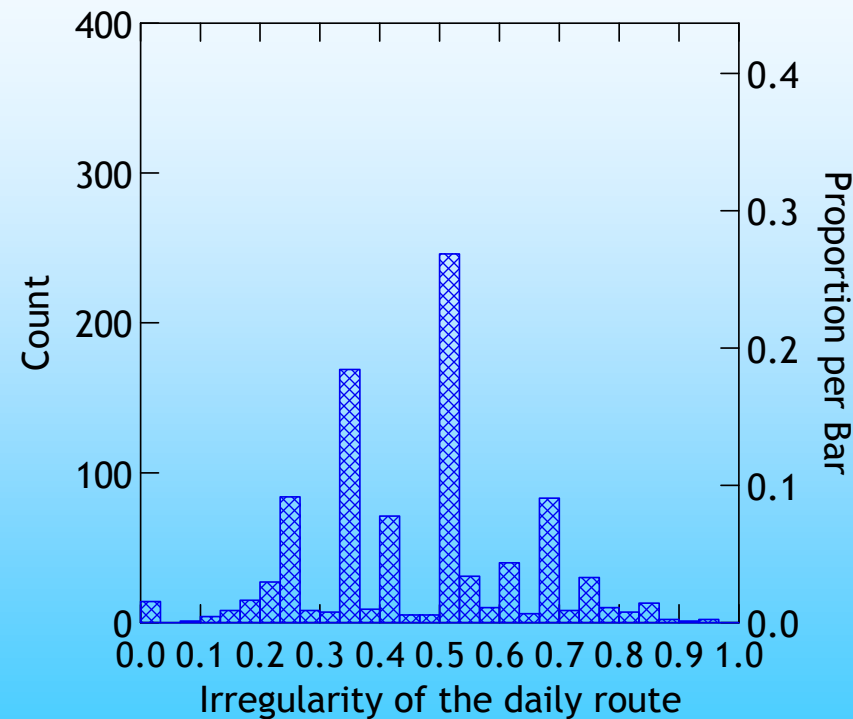
ranging
from 0
(no irregularity)
towards 1
(maximum irregularity)



0.5 =
the time of the daily-
route can double

Definition and analysis of the subjective indicators of qol in Florence

The irregularity of time required to cover the daily-route distances



Definition and analysis of the subjective indicators of qol in Florence

The subjective image of the city

observation

The **greatest irregularity** among citizens

- using the **car**
- living in **peripheral** areas

The **greatest regularity** among citizens

- using the **bicycle**
- living in the **centre**

2

Aggregation of the composite indicators

Aggregation of the composite indicators

The described composite indicators
were submitted to

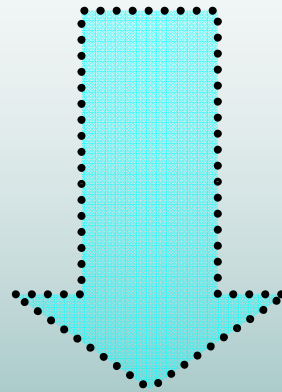
principal component analysis

additive tree analysis

cluster analysis

Aggregation of the composite indicators

4 dimensions were identified



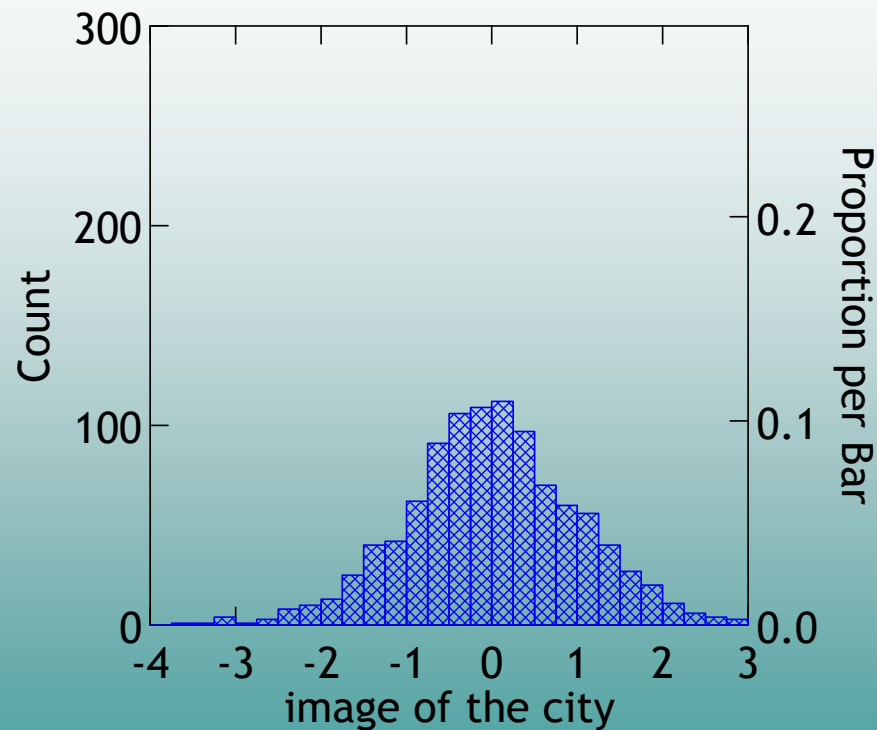
4 individual scores were calculated

Two indicators did not aggregate with any dimension:

- perception of tourist dimension
- irregularity of the daily-route

Aggregation of the composite indicators

a) image of the city

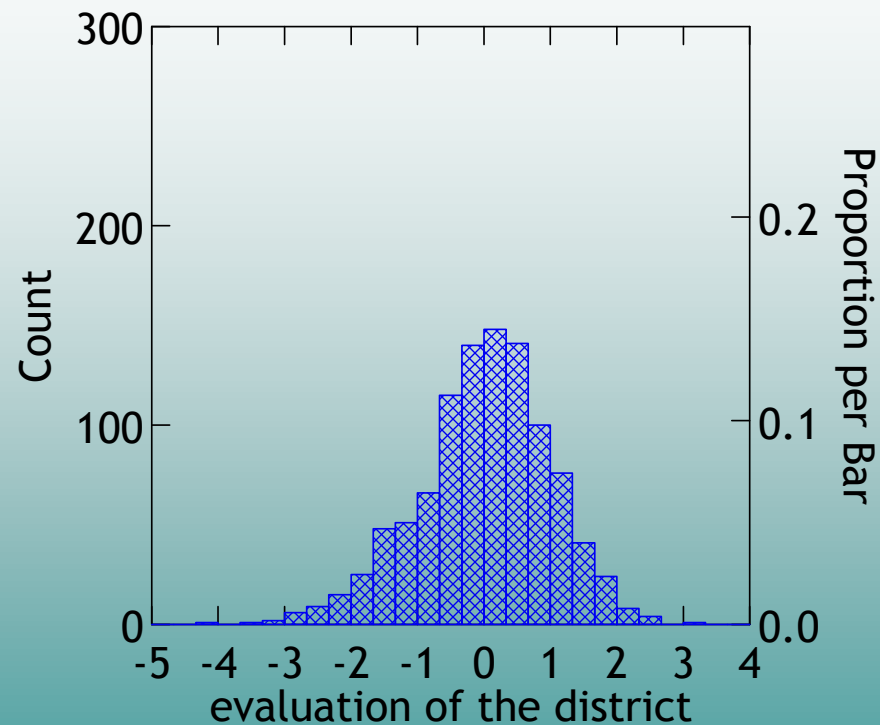


- organization (0.78)
- dinamicity (0.77)
- hospitality (0.81)

- liveability (0.78)
- perception of the cultural dimension (0.58)

Aggregation of the composite indicators

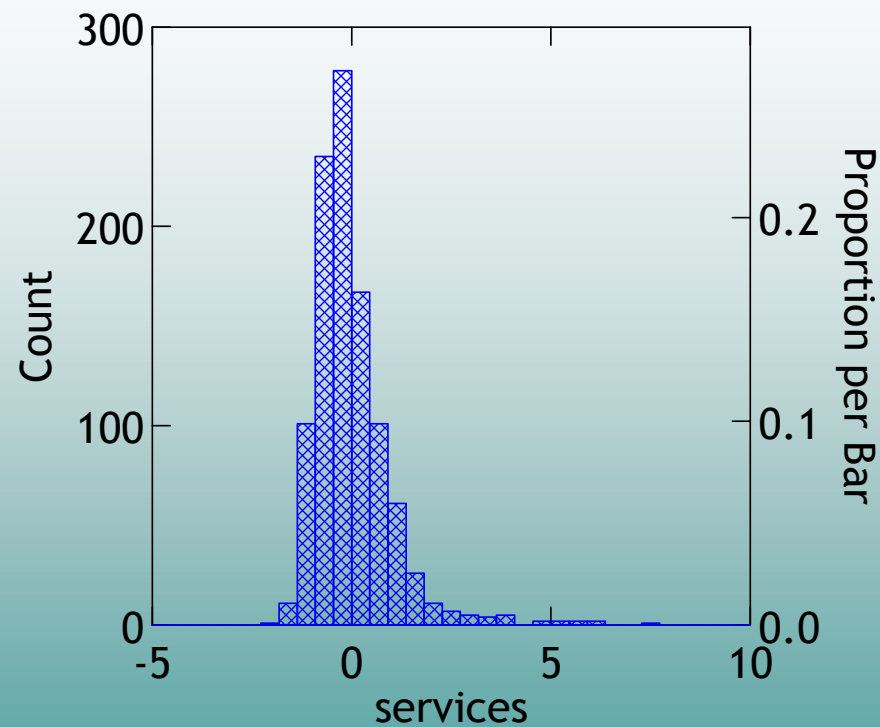
b) evaluation of the district



- | | |
|--|---|
| <ul style="list-style-type: none">• traffic condition (0.67)• presence of services (0.57)• road network condition (0.72) | <ul style="list-style-type: none">• urban environment (0.83)• urban green (0.78) |
|--|---|

Aggregation of the composite indicators

c) services

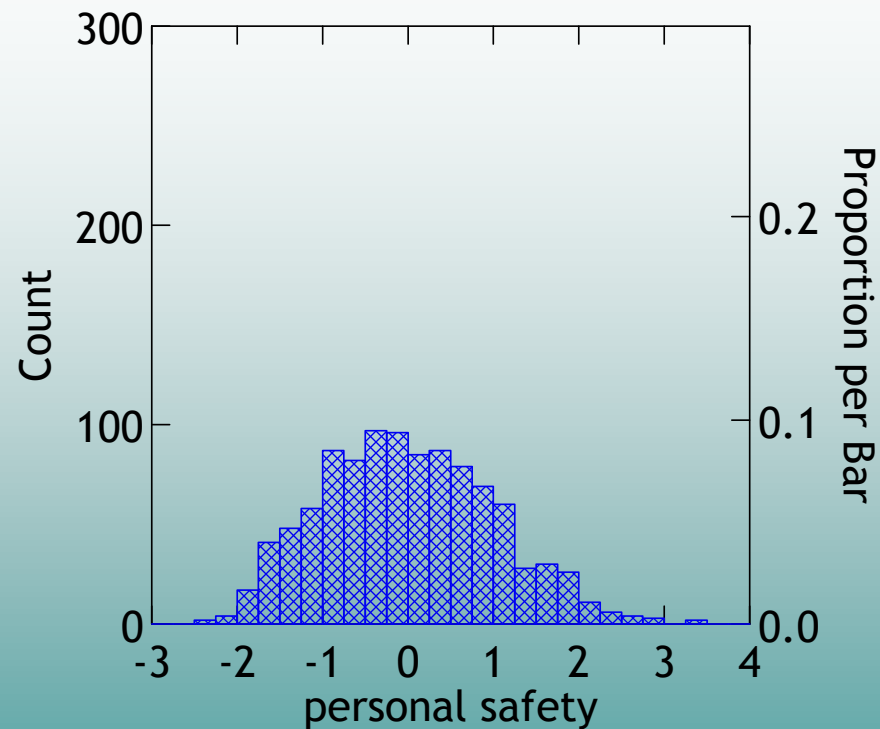


- extensive distribution (0.82)
- zonal distribution (0.84)

- variable distribution (0.67)
- evaluation of the presence of services (-0.48)

Aggregation of the composite indicators

d) personal safety



- personal safety perception: daytime (0.86)
- personal safety perception: night-time (0.88)

3

Identification of typical profiles of citizens

Identification of typical profiles of citizens

The cluster analysis identified
4 typical profiles

taking into account:

- aggregate indicators
- composite indicators (not considered in aggregation)
- single indicators of happiness and satisfaction for the city

Identification of typical profiles of citizens

subsequently

The multiple correspondence analysis

helped to better describe the
identified groups

taking into account:

- residence area
- profession
- sex
- family
- standard of education

Identification of typical profiles of citizens

1. the satisfied group

n = 442

- high level of happiness
- high level of satisfaction for one's life in Florence
- high level of satisfaction for the district
- positive image of the city
- good evaluation of the district
- high level of perception of personal safety
- mostly men
- being part of enlarged family context
- carrying on a white-collar activity

Identification of typical profiles of citizens

2. the critical group

n = 303

- mid-low level of happiness
 - mid-low level of satisfaction for one's life in Florence
 - mid-low level of satisfaction for the district
 - mid-low image of the city
 - mid-low evaluation of the district
-
- mostly singles and young couples
 - high standard of education (degree)
 - carrying on managerial or autonomous activity
 - living in central city area

Identification of typical profiles of citizens

3. the satisfied-with-little group

n = 364

- mid-low level of happiness
 - mid-low level of satisfaction for one's life in Florence
 - mid-low level of satisfaction for the district
 - mid-low image of the city
 - mid-low evaluation of the district
 - low level of perceived personal safety
-
- mostly women
 - people living far-off the centre

Identification of typical profiles of citizens

4. the integrated group

n = 76

- mid-high level of satisfaction for one's life in Florence
 - positive image of the city
 - high appreciation for the presence of the tourism
 - regular time in daily-route distances
-
- mostly elderly people (especially couples)

Conclusions

From the methodological point of view



The atypicality concerns
the operational definition
not necessarily
the conceptual definition

Conclusions

From the methodological point of view



The proposed approach allows

- to measure the defined ambits
- to explore the connection of the different levels of the indicators also with other individual characteristics

Conclusions

From the policy point of view



The aggregation analysis suggests that
the requirement to find syntheses
has to take into account the risk
of excessive synthesis (in presence of
multivariate characteristics)

Conclusions

From the policy point of view



The effort to perform deep analyses
(exploring the presence of significant
individual profile)
can be recompensed by valuable and
significant interpretation

Conclusions

From the Florentine point of view



The interviewed citizens have shown to have
a general positive relation with their city
in terms of both perception and evaluation

Conclusions

From the Florentine point of view



Two particular individual profiles:

- elderly people has a particular positive relation with the city
- singles (with high standard of education and an exacting job) have a difficult relation

Conclusions

From the Florentine point of view



The need to have up-to-dated information:
opportunity to build a system allowing periodical data
collection

at the present time, this opportunity is under
discussion within the Florentine research group

